

CLAIMS

We claim:

1. A method of alerting a user to configuration errors of shapes representing software artifacts and displayed on a visual design surface, the method comprising:
 - (a) displaying an icon next to a shape to represent at least one configuration error associated with the shape; and
 - (b) in response to a user selecting the icon, displaying at least one proposed solution to a configuration error.
2. The method of claim 1, further including:
 - (c) comparing shape configuration parameters of the shape to configuration parameter rules.
3. The method of claim 2, wherein the configuration parameter rules are selected based on a context in which the shape is being used.
4. The method of claim 2, wherein (c) is performed after (a) and further including:
 - (d) removing the icon when the configuration error no longer exists.
5. The method of claim 2, wherein (c) is repeated periodically.
6. The method of claim 5, wherein (c) is repeated when at least one configuration parameter of the shape changes.
7. The method of claim 6, wherein (c) is repeated when at least one configuration parameter of a shape other than the shape in (a) changes.

8. The method of claim 1, wherein the at least one proposed solution comprises a dialog box.
9. The method of claim 8, wherein the dialog box prompts a user to initialize a variable.
10. The method of claim 8, wherein the dialog box prompts a user to set a configuration parameter.
11. The method of claim 1, wherein the at least one proposed solution comprises a wizard.
12. The method of claim 1, wherein the at least one proposed solution comprises creating a new design element.
13. The method of claim 1, wherein the at least one proposed solution comprises adding a shape.
14. The method of claim 1, wherein the at least one configuration error comprises a necessary shape that is not connected to the shape in (a).
15. The method of claim 1, wherein the at least one configuration error comprises configuration parameters set in an inconsistent manner.
16. The method of claim 15, wherein the inconsistent configuration parameters are configuration parameters of the same shape.

17. The method of claim 15, wherein the inconsistent configuration parameters are configuration parameters of at least two shapes.

18. A method of alerting a user of configuration errors of shapes representing software artifacts and displayed on a visual design surface, the method comprising:

(a) displaying an icon next to a container shape to represent at least one configuration error with respect to a shape contained within the container shape; and

(b) in response to a user selecting the icon, displaying at least one proposed solution to the configuration error.

19. The method of claim 18, further including:

(c) expanding the container shape to display at least the shape contained within the container shape; and

(d) displaying the icon next to a shape contained within the container shape and that contains the at least one configuration error.

20. The method of claim 18, wherein the at least one configuration error comprises a necessary shape that is not connected to the shape contained within the container shape.

21. The method of claim 18, wherein the at least one configuration error comprises configuration parameters set in an inconsistent manner.

22. The method of claim 21, wherein the inconsistent configuration parameters are configuration parameters of the same shape.

23. The method of claim 21, wherein the inconsistent configuration parameters are configuration parameters of at least two shapes.

24. A method of alerting a user of configuration errors of shapes representing software artifacts and displayed on a visual design surface, the method comprising:

- (a) comparing shape configuration parameters of a shape to configuration parameter rules to identify configuration errors;
- (b) determining a common error that causes the identified configuration errors;
- (c) displaying an icon next to a shape to represent the configuration errors; and
- (d) in response to a user selecting the icon, displaying at least one proposed solution to the common error.

25. The method of claim 24, wherein the at least one proposed solution comprises setting a configuration parameter.

26. The method of claim 24, wherein the at least one proposed solution comprises creating a new design element.

27. The method of claim 24, wherein the at least one proposed solution comprises adding a shape.

28. The method of claim 24, wherein the common error comprises a necessary shape that is not connected to the shape in (a).

29. In a computer system having a graphical user interface including a display and a user interface selection device, a method of indicating configuration errors of elements displayed on a visual design surface and representing software artifacts, the method comprising:

- (a) displaying a plurality of the elements on the design surface;

(b) displaying an icon next to an element to identify a configuration error associated with the element; and

(c) in response to a command from the interface selection device, displaying at least one proposed solution to the configuration error.

30. A computer readable medium containing computer executable instructions for causing a computer system to perform the steps comprising:

(a) displaying on a design surface a plurality of shapes representing software artifacts;

(b) displaying an icon next to a shape to represent at least one configuration error associated with the shape; and

(c) in response to a user selecting the icon, displaying at least one proposed solution to a configuration error.